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REMARKS

Summary of Office Action

Claims 1-38 were pending.

Claims 1-6, 15, 17-20, 22-24, 26, 27 and 31-38 have been rejected under 35 U.S.C. 102(e) as being anticipated by Lewis U.S. patent No. 6,259,898 ("Lewis"). Further claims 7-14, 16, 21, 25 and 28-30 have been rejected under 35 U.S.C. 103(a) as being obvious from Lewis in view of one of Bahl et al. U.S. patent No. 6,629,151 ("Bahl"), Jusa et al. U.S. patent No. 6,031,863 ("Jusa"), or Gilbert et al. U.S. patent No. 6,205,495 ("Gilbert").

Applicant's Reply

The previously presented thirty eight claims were misnumbered in the application as claims 1-37 because two separate claims were both identified as claim 12. Applicant believes that the Examiner has kindly considered the previously presented claims with their correct sequential numbering 1-38. Applicant has now renumbered previous claims 12, 12, and 13-37 as claims 12, 13, ..., 38 so that the previous presented thirty eight claims are correctedly numbered in sequence from 1 to 38.

Applicant has amended independent claims 1, 15, 18, 19, 23, 27, 31 and 33 to clarify the invention. Further, claims 16-17, 20-22, 24-26, 28-30, 32 and 34-38 have been amended to correctly identify the independent claims they depend on. Applicant also submits new dependent claims 39-45 for examination.

Applicant respectfully traverses the prior art rejections.

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Applicant's invention as described in the parent application, is a novel system and method for providing wireless data communications between a mobile unit and a wired network following a protocol, such as IEEE Standard 802.11. Prior systems following such protocols use access points which are complex because of the need to perform all of the medium access control (MAC) functions required under the protocol at the access point. As described in the specification, some MAC functions such as cyclical redundancy check (CRC) and acknowledgement/retransmission (AK) functions are simple to perform but time-critical. Other MAC functions such as handling association requests and roaming functions are not time-critical, but are more complex to process. In accordance with the invention, the first group, called "low level" MAC functions, are handled in a simplified access point, called an RF port, while the second group, called "high level" MAC functions are handled by a separate common computer or device, which is connected to a plurality of RF ports. The separation of the performance of low level and high MAC functions provides for simplification in the design, hardware and software of the RF port, as compared to a conventional access point, and provides for greater flexibility in, for example, load management and quality of service (QoS) functions. Additionally, the common computer/device/ or cell controller can provide for downloading of firmware to the RF ports thereby enabling convenient updating of firmware.

In the present continuation-in-part application, applicant has disclosed an application of the arrangement of a common computer/device/ or cell controller and

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simplified RF ports for setting up multiple overlapping local area networks in the same or overlapping physical space.

Applicant respectfully submits that the cited references — Lewis, Bahl, Jusa and Gilbert, whether considered individually or in combination, do not, show, teach or suggest applicant's invention. In particular, the cited references do not show the elements of applicant's independent claims 1, 15, 18, 19, 23, 27, 31 and 33.

Independent claims 1, 15, 18, 19, 23, 27, 31 and 33

Independent claims 1, 15, 18, 19, 23, 27, 31 and 33 have been rejected under 35 U.S.C. 102(e) as being anticipated by Lewis.

Claims 1, 15, 18, 19, and 31 are directed to methods for operating physically overlapping wireless subnetworks using applicant's simplified RF port arrangement, in which the low level MAC control functions are performed by each RF port and high level MAC functions are performed for a plurality of RF ports by a common cell controller/computer/Internet or other external device. Claims 23, 27 and 33 relate to devices and systems for implementing such methods. Each of claims 1, 15, 18, 19, 23, 27, 31 and 33 calls out for an RF port which is configured to perform only a low level MAC functions while higher level MAC functions are performed for a plurality of RF ports by an common external device (e.g., a cell controller).

Lewis does not disclose, teach or suggest at least this feature of applicant's claims. Unlike applicant's simplified RF port arrangement, Lewis describes adding more complexity to otherwise conventional access points for wireless network implementations. Lewis, for example, describes access points 19 which include two transceivers (42a and 42b) and associated circuitry (36 a, 36b, 30, and 34) so that they

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can communicate with mobile units on two independent frequency channels. (See e.g., Abstract, FIGS 1 and 2, col. 4 lines 19-60). Lewis' access points 19 are "conventionally" coupled to the system backbone 17. Applicant further notes that these access points 19 perform all conventional high and low level MAC functions of a wireless network. For example, the allocation of signals to the two communication channels is performed entirely within each access point 19 (by processor 30 and memory 34 which are part of access point 19) and not by an external component common to several RF ports as in applicant's invention. Similarly, the higher level MAC function of mobile unit association/registration with an access point is performed entirely by access point 19 itself. (See e.g., FIGS, 4 and 6, col. 7 lines 19-56, col. 8 line 29- col. 9 line 27). Thus, Lewis does not show, teach or suggest the simplified RF port/cell controller type methods or arrangements that are called out in claims 1, 15, 18, 19, 23, 27, 31 and 33.

Further, none of the other cited references, Bahl, Jusa, or Gilbert shows, teaches or suggests the simplified RF port/cell controller type methods or arrangements that are called out in applicant's claims

For at least this reason, claims 1, 15, 18, 19, 23, 27, 31 and 33 are patentable over the cited references.

Dependent claims 1-14, 16-17, 20-22, 24-26, 32, and 34-45

Dependent claims 2-14, 16-17, 20-22, 24-26, 32, and 34-45 are patentable over the cited references at least for the same reason the independent claims they depend on are patentable as discussed above.


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Conclusion

For at least the foregoing reasons, the prior art rejections of claims 1-38 should be withdrawn. Applicant respectfully submits that this application is now in condition for allowance. Reconsideration and prompt allowance of which are requested.

If there are any remaining issues to be resolved, applicant respectfully requests that the Examiner kindly contact the undersigned attorney for a telephone interview.

Respectfully submitted,



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